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ABSTRACT

As part of the Quality Assurance procedures, a final test was administered to a sample of the classes participating in the 1970-71 Instructional Concepts Program (ICP). The posttest was designed to measure end-of-program performance on each of the six program outcomes: Color, Shape, Size, Position, Amount, and Pre-Mathematics. This report describes the procedures followed in testing, the sample tested, and test results on 1030 pupils in these classes. Summaries of the test results are given and illustrated. The Table gives the mean, standard deviation, and frequency distributions of the scores on each outcome and the total. The Figure gives a histogram of the frequency distribution of the scores for each outcome. (Author/DEP)

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TITLE: FINAL TEST RESULTS OF QUALITY ASSURANCE CLASSES USING THE INSTRUCTIONAL CONCEPTS PROGRAM (ICP)

AUTHOR: Mike Monteiro and Jerry Bailey

ABSTRACT

This report describes the final test results of a sample of pupils using the Instructional Concepts Program. The mean, standard deviation, and a frequency distribution for each of the six unit outcomes and total score are presented and discussed.

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FINAL TEST RESULTS OF QUALITY ASSURANCE CLASSES USING THE INSTRUCTIONAL CONCEPTS PROGRAM (ICP)

Objective

As part of the Quality Assurance procedures, a final test was administered to a sample of the classes participating in the 1970-71 Instructional Concepts Program (ICP).[1] The posttest was designed to measure end-of-program performance on each of the six program outcomes: Color, Shape, Size, Position, Amount, and Pre-Mathematics. This report describes the procedures followed in testing, the sample tested, and test results.

Procedures for Administration of Posttest

In December, 1970, a packet containing the ICP posttest sheets ("Pupil Record Forms"), stimulus cards, directions for administering the posttest, and a cover letter was sent to a sample of ICP teachers (see Appendices A, B, and C). The test was to be individually administered to pupils as soon as the class completed the program. The 35-item test consisted of a set of stimulus cards with three choices on each card. Each question required the pupil to select one of the three choices. No feedback or hints were to be given during the test, and the pupil's first response to a question was the only one to be recorded. After testing all pupils in her class, the teacher was to return the posttest sheets to the Laboratory using the preaddressed envelope provided.

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[1] For the procedures followed in developing and implementing the Quality Assurance Program during the 1970-71 school year, see TN 5-71-54, "The Development of the 1970-71 Quality Assurance Procedures."

Sample

Test materials were mailed to all classes in the ICP Quality Assurance sample. The original sample included 74 classes. However, nine classes never returned any data to SWRL, indicating non-participation in the program. In addition, 16 other classes did not complete the program and, therefore, could not be expected to return the end-of-program test. Of the 49 remaining classes, 41 returned the test forms. This report presents the data on 1030 pupils in these classes.

Results

Summaries of the test results are given in Table 1 and illustrated in Figure 1. The Table gives the mean, standard deviation, and frequency distributions of the scores on each outcome and the total. The Figure gives a histogram of the frequency distribution of the scores for each outcome.

Table 1

ICP POSTTEST RESULTS

MEANS, STANDARD DEVIATIONS, AND FREQUENCY DISTRIBUTIONS

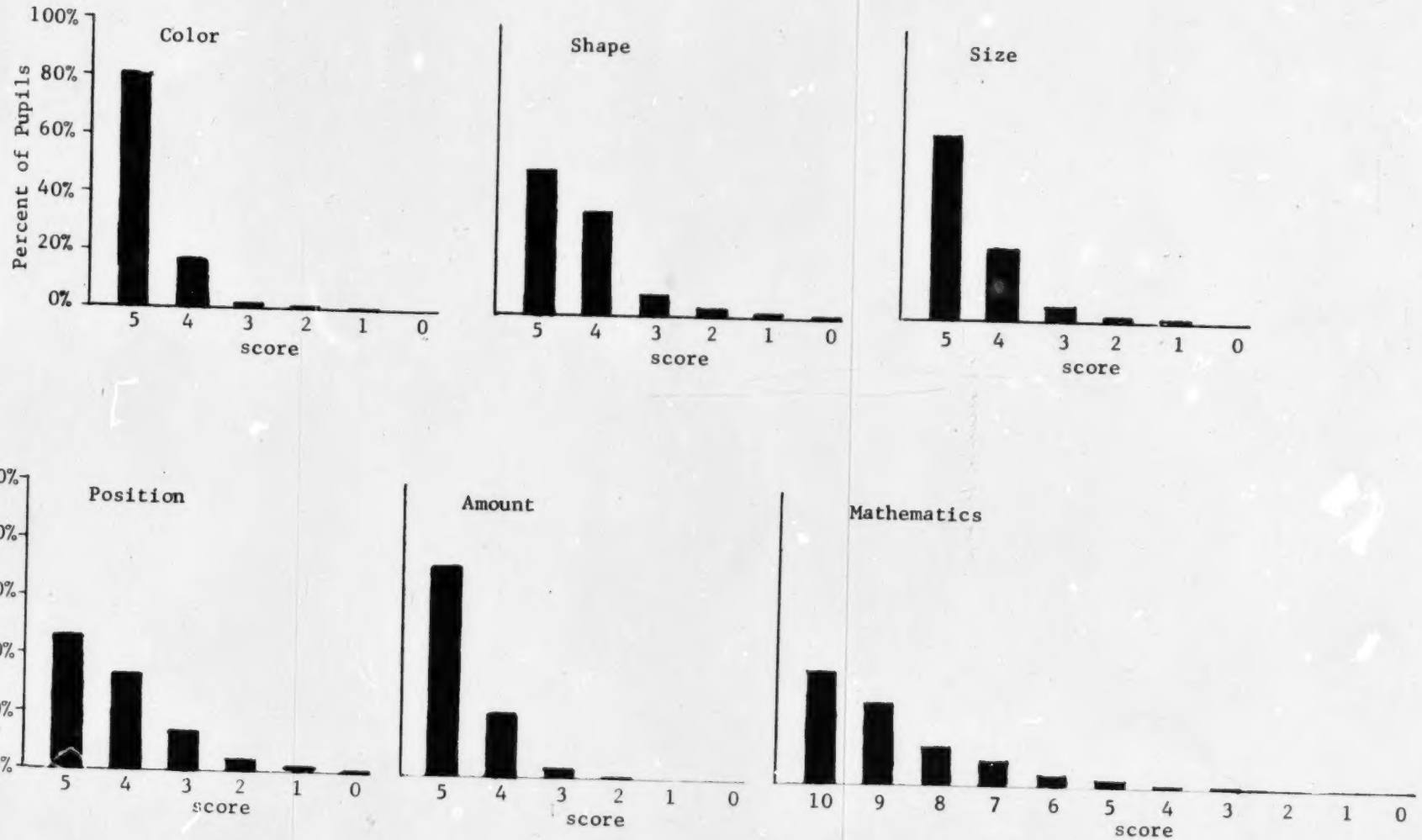
			NUMBER						PERCENT					
			Score						Score					
N = 1030	$\bar{X}$	S.D.	0	1	2	3	4	5	0	1	2	3	4	5
Color	4.77	.53	0	2	6	19	175	828	0.0	0.2	0.6	1.8	17.0	80.4
Shape	4.35	.80	1	5	30	81	395	518	0.1	0.5	2.9	7.9	38.4	50 3
Size	4.57	.68	0	1	16	56	280	677	0.0	0.1	1.6	5.4	27.2	65.7
Position	4.19	.95	5	10	42	148	343	482	0.5	1.0	4.1	14.4	33.3	46.8
Amount	4.68	.58	0	0	8	35	234	753	0.0	0.0	0.8	3.4	22.7	73.1

			NUMBER					PERCENT				
			Score					Score				
N = 1030	$\bar{X}$	S.D.	0-2	3-4	5-6	7-8	9-10	0-2	3-4	5-6	7-8	9-10
Math	9.24	1.13	0	6	28	171	825	0.0	0.6	2.7	16.6	80.1

			NUMBER					PERCENT				
			Score					Score				
N = 1030	$\bar{X}$	S.D	0-7	8-14	15-21	22-28	29-35	0-7	8-14	15-21	22-28	29-35
TOTAL	31.80	2.99	0	1	9	125	895	0.0	0.1	1.8	12.1	86.9

Figure 1

FREQUENCY DISTRIBUTIONS OF
THE ICP POSTTEST OUTCOME SCORES



Appendix A

PUPIL RECORD FORM

Instructional Concepts Inventory

1970-1971

Student _____ School _____

Teacher _____ AM PM Pretest Posttest

Tell the child that he is going to play a game, that you will show him some pictures and ask him to point to something in the pictures.

I. COLOR

Card 1:	"Point to the green bird."	1._____ 2._____ 3.correct
Card 2:	"Point to the purple dress."	1.correct 2._____ 3._____
Card 3:	"Point to the orange flower."	1._____ 2._____ 3.correct
Card 4:	"Point to the yellow butterfly."	1._____ 2.correct 3._____
Card 5:	"Point to the white hat."	1.correct 2._____ 3._____

II. SHAPE

Card 6:	"Point to the circle."	1.correct 2._____ 3._____
Card 7:	"Point to the curved line."	1._____ 2._____ 3.correct
Card 8:	"Point to the square."	1._____ 2.correct 3._____
Card 9:	"Point to the triangle."	1._____ 2.correct 3._____
Card 10:	"Point to the rectangle."	1.correct 2._____ 3._____

III. SIZE

Card 11:	"Point to the shorter lizard."	1._____ 2.correct 3._____
Card 12:	"Point to the largest turtle."	1._____ 2._____ 3.correct
Card 13:	"Point to the thinner sandwich."	1.correct 2._____ 3._____
Card 14:	"Point to the smaller dog."	1.correct 2._____ 3._____
Card 15:	"Point to the tallest tree."	1._____ 2._____ 3.correct

IV. POSITION

Card 16:	"Point to the monkey at the beginning of the line."	1.correct 2._____ 3._____
Card 17:	"Point to the cat that is beside the star."	1._____ 2._____ 3.correct
Card 18:	"Point to the bird in front of the airplane."	1.correct 2._____ 3._____
Card 19:	"Point to the cat at the end of the line."	1._____ 2._____ 3.correct
Card 20:	"Point to the cat that is under the star."	1._____ 2._____ 3.correct

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V. PRE MATHEMATICS A

Card 21:	"Point to the triangle under the line."	1.correct 2._____ 3._____
Card 22:	"Point to the green square."	1._____ 2.correct 3._____
Card 23:	"Point to the green mouse beside the box."	1.correct 2._____ 3._____
Card 24:	"Point to the smaller bird under the line."	1._____ 2._____ 3.correct
Card 25:	"Point to the larger rectangle."	1._____ 2.correct 3._____

VI. AMOUNT

Card 26:	"See this box of apples." (Point to one box.) "See this box of apples." (Point to other box.) "Point to the box with 3 apples."	1._____ 2.correct
Card 27:	"See this box of marbles." (Point to one box.) "See this box of marbles." (Point to other box.) "Point to the box with 5 marbles."	1.correct 2._____
Card 28:	"See the birds in this tree." (Point to one tree.) "See the birds on this tree." (Point to other tree.) "Point to the tree with 9 birds."	1.correct 2._____
Card 29:	"Point to the bowl with the most ice cream."	1._____ 2.correct 3._____
Card 30:	"Point to the pond with no ducks."	1._____ 2._____ 3.correct

VII. PRE MATHEMATICS B

Card 31:	"See this group of marbles." (Point to marbles in margin.) "Which group over here has the same number of marbles?"	1._____ 2.correct
Card 32:	"See this group of marbles." (Point to marbles in margin.) "Which group of marbles over here is equal in number?"	1._____ 2.correct
Card 33:	"See this cat? Point to a cat over here that is a different size."	1.correct 2._____
Card 34:	"See this?" (Point to square in margin.) "Point to something over here that is the same shape."	1.correct 2._____
Card 35:	"See this cat? Point to a cat over here that is the same color."	1._____ 2.correct

Appendix B

DIRECTIONS FOR ADMINISTERING THE INSTRUCTIONAL CONCEPTS INVENTORY

The Instructional Concepts Inventory is a concept-identification test consisting of 35 items. The Inventory, which is individually administered, serves as a pre- and posttest for the Instructional Concepts Program. The purpose of the Inventory is to measure the effectiveness of the program.

PROCEDURE

Use the following procedures when administering the Instructional Concepts Inventory.

1. Select a testing area which is relatively quiet.

2. Record the student's name, teacher's name and school on the top of the Pupil Record Form.

3. Seat the child at a table which is low enough for him to see the test cards.

4. Briefly establish rapport with the child by telling him that he is going to play a game with you, and that you are going to show him some pictures. Before beginning, make every effort to insure that the child is comfortable and free from anxiety.

5. Begin the test by showing Card #1 and saying, "Can you point to the green bird?" Regardless of whether the child gives a correct or incorrect answer, say "O.K." Then turn to the next card. If a child does not answer, wait 10 seconds before turning to the next card.

6. Continue with Card #2 using the script on the Pupil Record Form.

7. Be sure to give no hints verbally or by gesture.

8. Record the student's first response to each item on the Pupil Record Form.

The score for each test is the total number of correct responses. Write this score at the top of the Pupil Record Form. Return all Pupil Record Forms to SWRL in one of the large pre-addressed grey envelopes.

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Appendix C

COVER LETTER

Each member of the Quality Assurance sample was asked to send Criterion Exercises to the Laboratory, and to administer and submit end-of-program performance tests. The procedures for handling these data were explained during a visit to your school last Fall. It is now time to administer the program performance test. Enclosed are the materials you will need to administer this test.

The test includes questions on six separate outcomes of the Instructional Concepts Program, containing 35 items, and is designed to be individually administered. Also enclosed is an instruction sheet which gives the procedures you should follow in administering the test, one set of stimulus cards, which is used to present the test items to each pupil, and an answer sheet for each pupil on which to record the pupil's responses.

We ask that you administer the test upon completion of the program. You may test a part of your class on each day or all students on one day. After you have completed the testing you may wish to record the scores for your records. Then forward all completed answer sheets in the return envelopes supplied for the Criterion Exercises.

Your cooperation in providing this information, as well as the Criterion Exercises, is greatly appreciated.

Sincerely,

Ralph A. Hanson

Ralph A. Hanson
Quality Assurance Program

RAH:om
Enclosures